AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Hydraulic and Pneumatic						
Course Code		OTT254		Couse Level		Short Cycle (Associate's Degree)		
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Hydraulic-pneumatic circuit elements and circuit systems to create and maintenance-repair of machines intended to bring qualifications						
Course Content		Hydraulic and Pneumatic systems and circuit elements.						
Work Placement		N/A						
Planned Learning Activities and Teaching Methods		Explanation (Presentation), Experiment, Demonstration, Problem Solving						
Name of Lecturer(s)								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Hydraulic and Pneumatic Lecture Notes

Week	Weekly Detailed Course Contents	
1	Theoretical	Recognition of Hydraulic Circuit Components
2	Theoretical	Creating Hydraulic Circuit Diagram
3	Theoretical	Detecting the Failures of Hydraulic Systems
4	Theoretical	Eliminating Hydraulic Malfunctions
5	Theoretical	Recognizing Pneumatic Circuit Components
6	Theoretical	Creating Pneumatic Circuit Diagram
7	Theoretical	Creating Electropneumatic Systems
8	Theoretical	Creating Electropneumatic Systems
9	Intermediate Exam	Midterm
10	Theoretical	Detecting Pneumatic Systems Faults
11	Theoretical	Troubleshooting Pneumatic Malfunctions
12	Theoretical	To make periodic checks of systems
13	Theoretical	Periodic Maintenance of Systems
14	Theoretical	Fault Finding
15	Theoretical	To repair the defective machine
16	Final Exam	Semester final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Lecture - Practice	14	0	1	14
Project	16	0	2	32
Midterm Examination	1	5	1	6

Final Examination	1	5	1	6
			Total Workload (Hours)	100
		[Total Workload (Hours) / 25*] = **ECTS**		4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To make operations related to hydraulic systems
2	Hydraulic elements and circuits recognition
3	To make operations related to pneumatic systems
4	Pneumatic elements and circuits recognition
5	To make basic maintenance and repairs of machine tools

Programme Outcomes *(Automotive Technology)*

1	To be able to interpret and evaluate data, identify problems, analyze them, and develop evidence-based solutions by using basic knowledge and skills in the field.
2	Must be able to choose and effectively use the modern techniques, tools and information technologies necessary for field related applications.
3	Must be able to gain practical skills by examining relevant processes in industry and service sector on site.
4	They must be able to produce solutions, take responsibility for teams or do individual work when they encounter situations unforeseen in the field related applications.
5	Awareness of the need for lifelong learning; it must be able to follow the developments in science and technology and to constantly renew itself.
6	Must be able to use computer software and hardware at the basic level required by the field
7	Must have job security, worker health, environmental protection knowledge and quality awareness.
8	He must possess a level of foreign language knowledge that is capable of following the innovations in his area of expertise and communication techniques.
9	Must be able to acquire basic theoretical and practical knowledge about the field in mathematics, science and basic engineering.
10	It should have the ability to plan the processes / processes of the Automotive Program to meet the expectations of the sector.
11	To be able to design the systems and components related to the field by using technical drawing, computer aided drawing, designing using simulation programs and using various softwares, to be able to make basic sizing calculations, to be able to master professional plans and projects.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	3	4	3	4	3
P2	3	4	3	3	4
P3	5	4	3	5	4
P4	4	3	3	4	3
P5	4	5	4	3	4
P6	3	3	4	5	3
P7	4	4	4	3	4
P8	4	4	3	4	2
P9	3	4	3	3	2
P10	4	5	3	3	4
P11	3	3	4	4	3